Feb. 8*th.*

DR. HAYS in the Chair.

Twenty-nine members present.

Dr. Rand announced the death at sea, on his return from China, of Captain McMichael, late a member elect of the Academy.

Feb. 15*th.*

Vice President BRIDGES in the Chair.

Thirty-eight members present.

Papers were presented for publication of the Proceedings, entitled, Observations on the Species of Nicotiana, by John Le Conte.

Catalogue of the Coleoptera of Fort Tejon, California, by John L. Le Conte, M. D.

And were referred to Committees.

Mr. Powel read extracts from a letter, giving information in relation to certain fossil bones in the neighborhood of Enfield, North Carolina.

Feb. 22*d.*

Vice President BRIDGES in the Chair.

Forty members present.

On report of Committees on the Biological Department, the following named papers were recommended for publication in a medical journal.

Observations on the exposed hearts of Animals, by S. Weir Mitchell, M. D.

Observations on the colorless blood-corpuscle, by Wm. A. Hammond, M. D.

The following papers were, on report of the respective Committees, ordered to be printed in the Proceedings:

ICHTHYOLOGICAL NOTICES.

BY CHARLES GIRARD, M. D.

V. We have often had an opportunity to speak of curious traits of organization amongst the fishes of California and Oregon, but we think that the species which is the subject of this paragraph, yields nothing in that respect to those alluded to elsewhere.

Let it be stated at once that it belongs to the blennioid family, as now understood by us, and will enter into the genus *Neoclinus*, as characterised in the "Report upon the Fishes of the U. S. P. R. R. Expl. and Surveys," without any material modification of its diagnosis. And yet when we first beheld this singular creature—prior to any examination of its organic structure—we were far from suspecting its natural affinities to the family to which it belongs in reality. The fish is from eight to nine inches in total length; its body is very much compressed and tapering; the head being about two inches long and deeper than broad, superiorly convex, anteriorly rounded off; the branchial apertures are widely open, continuous under the throat; the mouth is deeply

cleft; the pectorals and ventrals, and the fins generally, assume a position and an aspect, not departing from the normal rule in that family. In the characters thus far enumerated, there is nothing to attract very particularly the attention, except, perhaps, the broad exit to the respiratory stream; and, as far as the dentition is concerned, we have already stated its type by referring the species to the genus *Neoclinus*. But now imagine a fish with all these characters, provided with a mouth very wide and deeply cleft, with the maxillar bones in their usual position, developed beyond all proportions; so much so that their posterior extremity, which is considerably dilated, extends beyond the branchiostegal apparatus. Between the cheeks and the inner edge of the maxillar bones there is a connecting membrane, which measures about an inch and a half along its posterior edge, and gives the mouth an enormous amplitude when viewed in front; both maxillars stretched. The same membrane extends from the angle of the mouth, along the lower jaw to near its apex or symphysis, towards which it tapers. That abnormal development of the maxillar bones reminds us of a similar peculiarity of structure in *Opistognathus sonnerati*, upon which species the genus *Opistognathus* was founded. Another species of the same genus *Opistognathus*, however, *O. cuvieri*, does not possess the same feature, and the generic characters of *Opistognathus* are now derived from other structural traits. In treating of *Neoclinus* it will be recollected, we alluded to the natural affinities between these two genera. They differ chiefly by the dentition and the structure of the ventral fins: *Neoclinus* having conspicuous palatine teeth and three articulated rays only to the ventrals; whilst *Opistognathus* has the palate toothless, or nearly so, and is provided with five articulated rays to its ventral fins. The pectorals, dorsal, anal and caudal fins present the same general appearance in both genera. Even the scales are similar: they being small, imbricated and cycloid in their structure. The air bladder, which is wanting in *Neoclinus*, is extant in *Opistognathus*.

It is more than probable that had we been acquainted with this second species of *Neoclinus* first, we would have been misled as to its real generical characters, and framed a name in allusion to the condition of the upper jaw, such as *Pterognathus* for example, which would have been most characteristic, for that upper jaw is as truly winged as the anterior members of the flying squirrels. We cannot help thinking that Cuvier himself would not have coined the name of *Opistognathus* had he had before him the species which bears his name, instead of that which he dedicated to Sonnerat.

These two genera (*Opistognathus* and *Neoclinus*,) will furnish one of the best themes to ichthyological studies, as they exemplify the fact that *specific characters* may be developed to exaggeration, and become more conspicuous than the *generic characters* themselves.

Returning now to the principal object of this paragraph, which is to record a second species in the genus *Neoclinus*, and to which we give the name of *N. satiricus*, the chief difference between the latter and *N. blanchardi* resides in development of the maxillar bones, above alluded to. The cephalic membranous flaps or tentacles, which we noticed in the species formerly described. do not appear to exist in the present one; so that their expression will have to be stricken out from the generical diagnosis. The formula of the rays: Br. VI: VI; D 42; A 29; C 3, 1, 5, 4, 1, 4; V 1, 3; P 14, bears a great resemblance to that of *N. blanchardi;* we have not been able to ascertain how many of the rays of the dorsal fin are simple and unarticulated. The insertion of the ventrals takes place somewhat more in advance of the pectorals than in the species just alluded to.

The color is uniform olivaceous brown, with a bluish black tint prevailing over the sides of the head and the fins. The maxillar membrane is posteriorly white edged, as in *N. blanchardi*.

The only specimen of this species that has come to our knowledge, was caught at a depth of thirty fathoms, in the Bay of Monterey, Cala., and sent to the museum of the Smithsonian Institution by A. S. Taylor, Esq., to whom

science is already indebted for some of the rarest ichthyological and careinological productions of the Pacific coast.

VI. A few months have scarcely elapsed since we stated that no representatives of the sub-order of apod malacopterian fishes had so far been observed along the Pacific coast, west of the United States. We are now in possession from that coast of a fine species, which, according to Kaup's classification, belongs to the family *Ophisuridæ*, and more properly still to the subfamily *Myrophinæ*. Its generical affinities are with *Myrus*, from which it, however, differs by the dentition and the condition of the dorsal fin. The genus to which it belongs may be characterized as follows: Pectoral fins present. Origin of dorsal fin situated near the occiput, in advance of the base of the pectorals. Head large, subconical, lower jaw shorter than the upper. Teeth granular, disposed upon elongated patches, on the jaws, palate and nasal bones Eyes well developed. Gill apertures lateral, of moderate development, and placed vertically in advance of the pectoral fins. Body scaleless.—A specimen from Adair Bay, Oregon, measures about two feet in total length. Its body is subcylindrical, somewhat compressed, and tapering gradually backwards. The origin of the dorsal fin takes place near the occipital region, upon a vertical line somewhat nearer the base of the pectorals than the posterior rim of the eye. The beginning of the anal fin is nearer the extremity of the snout than the tip of the tail. The pectoral fins are subelliptical in their outline, broader than long. The head, from the apex of the rostrum to the branchial aperture, measures about two inches, or else the twelfth part of the total length; it is subconical, anteriorly attenuated, the upper jaw projecting considerably beyond the lower one. The gape of the mouth is nearly horizontal; its angles extending considerably beyond the orbits. The teeth are subconical or hemidiscoid, granular or sand like in general appearance and of various sizes; very small ones occupying the intervening space between the largest. They are disposed upon multiple series: three of these may be observed towards the anterior portion of the dentary (lower jaw), whilst one only extends backwards along that bone. There is a double series of them at the upper jaw; a double series also along the shaft of the vomer, the latter being continuous forwards with the nasal patch, where three or four series exist. The nostrils approximate the apex of the rostrum; the upper ones are very small, and placed opposite the inferior ones, which are conspicuous and tubular. The eyes are subelliptical and well developed; their longitudinal diameter entering twice upon the rostral distance anterior to the orbits.

The ground color is brownish olive, except the throat and belly which are of a dull whitish tint. Rounded, dark brown spots, rather diffuse at their periphery, constitute four longitudinal series from head to tail, leaving but the abdominal region unicolor, for the throat exhibits small, blackish spots. The spots about the head are likewise a good deal smaller and of a deeper hue than along the rest of the body. The fins are olivaceous; the anal and pectorals being unicolor, whilst the dorsal fin is edged with white and exhibits moreover a series of spots similar to those observed on the body.

We have selected the name of *Myrichthys tigrinus* for the above species. The specimen upon which the foregoing observations were made, was caught in Adair Bay, Oregon, by Capt. C. P. Stone, and presented to the Museum of the Smithsonian Institution.

VII. A few years ago we have established the genus *Cyprinella* to include sundry species of small cyprinoid fishes apparently very numerous in the rivers and streams lying westwardly to the main bed of the Mississippi, as well as in Texas and the Mexican provinces adjoining the Rio Grande del Norte (Rio Bravo). Up to the time our reports upon these fishes passed through the press, we had not met with any species of that genus east of the Alleghany range. We are now in possession of numerous specimens of various sizes, from an inch to three inches in total length, which appears to be the full grown